

Priority-setting for Cochrane Pregnancy and Childbirth Group Review Updates: A Delphi Process

Nimisha KUMAR, BS^a; Sean GRANT, DPhil, MSc^b; David M. HAAS, MD, MS^a

^aDepartment of Obstetrics & Gynecology,

Indiana University School of Medicine

550 N. University Boulevard, UH 2440

Indianapolis, IN 46202

USA

Correspondence to: David M. Haas

email: dahaas@iupui.edu

phone: 317-880-3960

^bDepartment of Social & Behavioral Sciences,

Indiana University Richard M. Fairbanks School of Public Health

Health Sciences Building (RG) 6046

1050 Wishard Blvd.

Indianapolis IN 46202

USA

email: spgrant@iu.edu

phone: (317) 274-3245

Short Title: Prioritization of Cochrane PCG Review Updates

Funding: NK - This publication was made possible with partial support from Grant #UL1TR002529 (A.

Shekhar, PI) from the National Institutes of Health, National Center for Advancing Translational

Sciences, Clinical and Translational Sciences Award.

This is the author's manuscript of the article published in final edited form as:

Kumar, N., Haas, D. M., & Grant, S. (2020). Priority setting for the Cochrane Pregnancy and Childbirth Group review updates: a Delphi process. American Journal of Obstetrics & Gynecology MFM, 100205. <https://doi.org/10.1016/j.ajogmf.2020.100205>

Declaration of interest: SG's spouse is a salaried-employee of Eli Lilly and Company, and owns stock.

SG has accompanied his spouse on company-sponsored travel. All other authors have declared that no competing interests exist.

Word count: 616

1. Introduction

The Cochrane Pregnancy & Childbirth Group (PCG) periodically updates systematic reviews to stay current. With over 600 titles, determining which review topics are most important to stakeholders can assist with prioritizing reviews for updates. A goal of the newly-established US Satellite of the PCG (US-PCG) is to involve consumers and stakeholders early in the Cochrane review process. The objective of this study was to prioritize titles most important to US stakeholders to guide upcoming review updates.

2. Methods

We designed this prioritization process (see Figure 1) using Cochrane guidance and previous prioritization processes^{1,2}. Our protocol, materials, and data can be found on the Open Science Framework³.

Two Managing Editors critically reviewed the 636 PCG review titles in the *Cochrane Library* for updating needs. They narrowed the list to 207 titles, which a US-based Contact Editor (DMH) further limited to 91 titles relevant to the US population and current practice covering 34 different PCG review topics across seven themes (Figure 2).

We used Qualtrics[®] to administer a Delphi process for prioritizing approximately five to eight titles (the manageable workload for the US-PCG) from the list of 97 titles⁴. We sent invitations to relevant organizations (e.g., American College of Obstetricians and Gynecologists, March of Dimes), department listservs (e.g. Indiana University School of Medicine Departments of OB/Gyn and Pediatrics), and social media groups (e.g., Indy and Cincinnati Moms Blogs) in an effort to incorporate both providers and consumers in the process. A link to the survey was supplied with the invitation and points of contact were encouraged to spread with any other potentially interested parties.

In Round 1, participants chose themes (up to seven) for which they wanted to rank titles. Participants then saw review titles for the themes that they selected. Each participant rated up to 10 titles as “highest-priority” and up to 20 as “medium-priority”, and then ranked titles within each category. Participants could also rate titles as “not a high priority at this time”. We then ranked titles according to the number of times participants rated each as “highest” or “medium” priority.

In Round 2, we sent each participant their personal top-10, the top-10 from their stakeholder group (clinician/researcher or consumer), and the overall top-10 titles. Participants ranked their five highest-priority topics among all titles provided to them. We then ranked titles according to how often participants included each title as one of their five topics.

3. Results

We recruited 63 participants (45 clinicians/researchers, 18 consumers) for Round 1 and retained 34 (24 clinicians/researchers, 10 consumers) for Round 2. Clinicians/researchers indicated greatest interest in reviews on maternal medical problems and complications (MMPCs), while consumers indicated greatest interest in both MMPCs and postpartum psychosocial care. The Delphi process yielded six priority topics. Four were prioritized by both stakeholder groups: Health system and community level interventions for improving antenatal care coverage and health outcomes; Antiplatelet agents for preventing pre-eclampsia and its complications; Preventing venous thromboembolic disease; and Lifestyle interventions for gestational diabetes mellitus to improve maternal and fetal health and well-being. Clinicians/researchers also prioritized Antenatal psychosocial assessment for reducing perinatal mental health morbidity; consumers prioritized Psychosocial and psychological interventions for preventing postpartum depression.

4. Discussion

The US-PCG submitted the six prioritized titles to the PCG Editorial team. Three (Health systems..., Antenatal psychosocial..., Psychosocial ...) are to be updated by the US Satellite in 2020. One

(Antiplatelet agents...) had already been updated by the time our results were analyzed⁵ and another (Preventing venous...) was in the updating process. The last review (Lifestyle interventions...)'s previous author team agreed to update the review in 2020. Strengths of this prioritization process include a diverse sample from a wide variety of organizations, and a sample size commensurate with other Delphi processes. Limitations include attrition between rounds, greater representation of researchers/clinicians than consumers, and use of technical language (rather than plain language translations). Furthermore, topics were curated by a US contact editor for relevance to US practice and prioritization was limited to US clinicians, researchers, and consumers; thus, these titles would not be well extrapolated to other countries. The identified topics also encompass important areas in obstetrics: preeclampsia prevention, interventions for gestational diabetes, improving healthcare coverage, and mental health during pregnancy.

Per the Centers for Disease Control and Prevention, heart disease and stroke are the leading causes of maternal mortality in the US with over a third of deaths. However, systemic barriers and inequality are also notable contributors to all causes of maternal mortality⁶. The prioritized topics aptly reflect these causes with three pathology-driven reviews, two mental health reviews, and one systemic intervention review.

The US-PCG plans to undertake another priority-setting exercise for new reviews in the next few years.

Acknowledgements: Thank you to the Cochrane Pregnancy & Childbirth Group editorial base for facilitating updates of these reviews as well as all the authors who have agreed to work on these updates.

Figure Legends

Figure 1. Overview of the prioritization process

Figure 2. Consolidation of the 24 topic areas into 7 major themes

References

¹ Cochrane Knowledge Translation Working Group. Guidance note for Cochrane Groups to define systematic review priorities. Available at:

https://training.cochrane.org/sites/training.cochrane.org/files/public/uploads/PSGuidanceNote_Version%203.1_30%20September%202019.pdf

² Cochrane Pregnancy and Childbirth Group. Stakeholder Prioritisation Process – 2012. Available at:

https://pregnancy.cochrane.org/sites/pregnancy.cochrane.org/files/public/uploads/PCG%20Stakeholder%202012_0.pdf

³ Haas D, Kumar N. US Cochrane Satellite of the PCG Stakeholder Prioritization Process 2019. OSF 2019. Available at: osf.io/yqkjj.

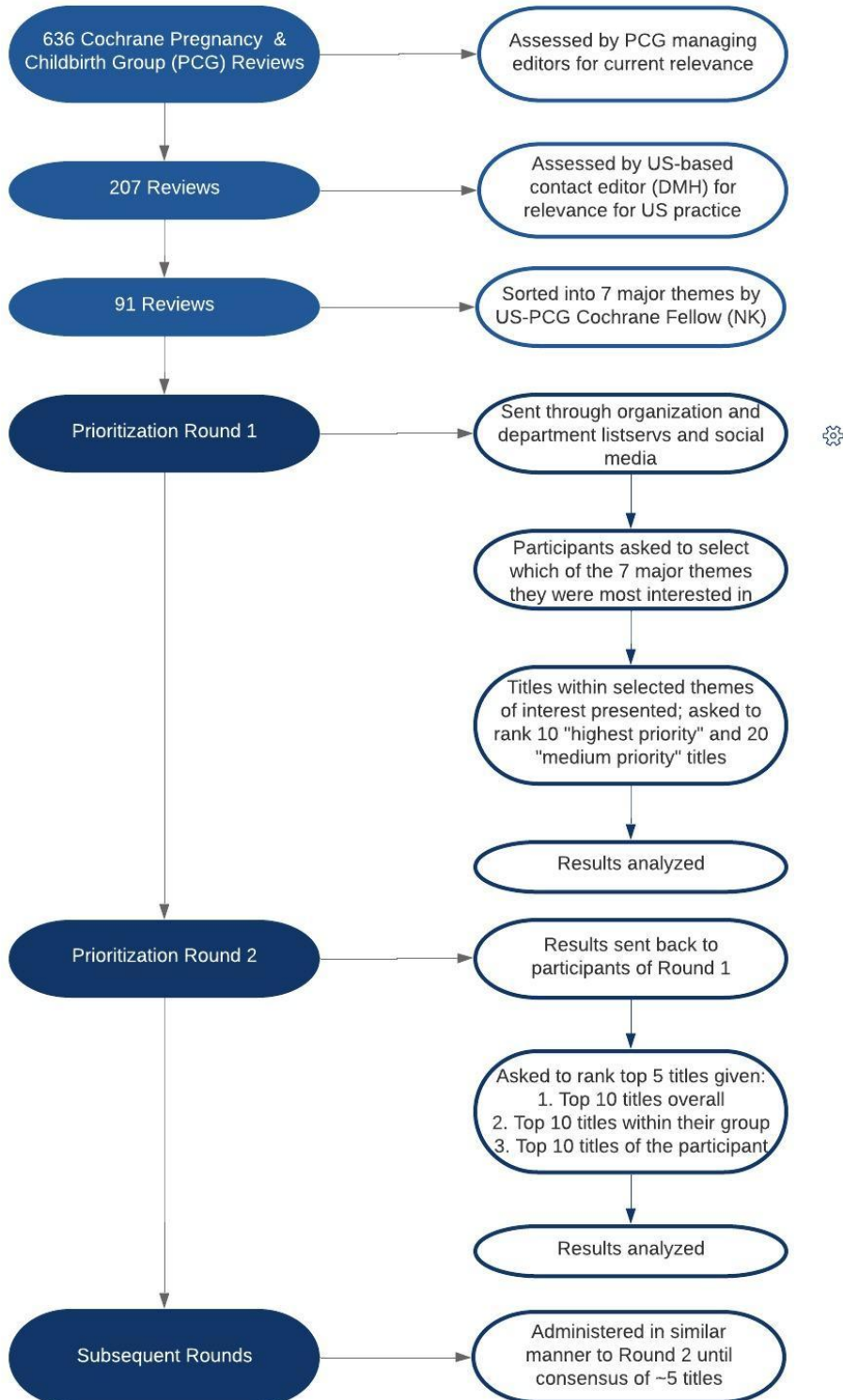
⁴ Khodyakov, D., Hempel, S., Rubenstein, L., Shekelle, P., Foy, R., Salem-Schatz, S., ... & Dalal, S. (2011). Conducting online expert panels: a feasibility and experimental replicability study. *BMC Medical Research Methodology*, 11(1), 174.

⁵ Duley L, Meher S, Hunter KE, Seidler AL, Askie LM. Antiplatelet agents for preventing pre-eclampsia and its complications. Cochrane Database of Systematic Reviews. Available at: doi.org/10.1002/14651858.CD004659.pub3

⁶ Pregnancy-Related Deaths. Office of the Associate Director for Communication, Centers for Disease Control and Prevention 2019. Available at: <https://www.cdc.gov/vitalsigns/maternal-deaths/index.html>

Prioritization Flowsheet

Nimisha Kumar | June 12, 2020



Ante/intra/postpartum care (psychosocial factors) <ul style="list-style-type: none"> • Basic care during pregnancy • Antenatal care • Behavior advice during pregnancy • Nutrition during pregnancy • Psychological wellbeing during pregnancy • Care during childbirth • Care after childbirth • Lactation 	Maternal comorbidities <ul style="list-style-type: none"> • Symptoms during pregnancy • Hypertension • Glucose intolerance • Thromboembolic disorders • Other diseases in pregnancy • Infection during pregnancy and childbirth • Anemia during pregnancy • Cardiac and renal disease • Obesity 	Labor and post-labor complications <ul style="list-style-type: none"> • Fetal malpresentation position • Postpartum hemorrhage-retained placenta • Dystocia • Fetal compromise during labor • Pain during labor • Perineal trauma • Perineal pain
Fetal comorbidities <ul style="list-style-type: none"> • Impaired fetal growth well-being • Fetal disease 	Procedures <ul style="list-style-type: none"> • Induction of labor • Caesarean section • Operative vaginal delivery 	Prelabor complications <ul style="list-style-type: none"> • Miscarriage • Prelabour ROM • Multiple pregnancy • Antepartum hemorrhage • Preterm labor • Fetal assessment before labor

What is new?

- We used a Delphi process to prioritize updates of pregnancy and childbirth review titles in the Cochrane Library
- Clinicians/researchers and consumers had four titles that overlapped in their top five prioritized titles after two rounds
- These two groups have similar interests in pregnancy and childbirth topics.

Nimisha Kumar: conceptualization, methodology, software, formal analysis, investigation, data curation, writing (original draft), visualization, project administration

Dr. David M. Haas: conceptualization, methodology, formal analysis, writing (review & editing), supervision

Dr. Sean Grant: conceptualization, methodology, formal analysis, writing (review & editing)